

Mathemalchemy: A Mathematical and Artistic Adventure

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Mathemalchemy (Figure 1) is a collaborative art installation conceived as the brainchild of mathematician Ingrid Daubechies and fiber artist Dominique Ehrmann. It was realized by a collaboration with 22 other mathematical artists and artistic mathematicians: Emily Baker, Dorothy Buck, Bronna Butler, Faye Goldman, Susan Goldstine, Rochy Flint, Edmund Harriss, Li-Mei Lim, Sabetta Matsumoto, Vernelle A. A. Noel, Liz Paley, Kathy Peterson, Sam Pezzimenti, Tasha Pruitt, Kim Roth, Henry Segerman, Jessica K. Sklar, Jake Wildstrom, Mary William, Daina Taimina, Ed Vogel, Carolyn Yackel, many of whom have long been part of the Bridges community.

The installation celebrates the creativity and beauty of mathematics. Playful constructs include a flurry of Koch snowflakes, Riemann basalt cliffs, and Lebesgue terraces. It was designed and constructed during the pandemic, and has been touring North America since January 2022. The 8th exhibition of *Mathemalchemy* is currently open at the Navajo Nation Museum in Window Rock, Arizona, USA.

An accompanying comic book [1] was produced by graphic artist and biology professor Jay Hosler and his son Max to explain the installation to children of all ages. This talk will review the genesis and creation of the installation, and highlight some of its mathematical features.



Figure 1: *Mathemalchemy at the National Academy of Sciences in Washington DC, USA.*

References

- [1] Jay Hosler and Maxwell Hosler. *Mathemalchemy: A comic book adventure in math and art.*
<https://mathemalchemy.org/a-comic-book-adventure-in-math-and-art/>